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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,661	08/05/2003	Hidekazu Kikuchi	4641-65956	8882

7590 10/05/2004
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EXAMINER

RUTLEDGE, DELLA J

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/635,661	Applicant(s) KIKUCHI ET AL.	
	Examiner D. Rutledge	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 10, 12, 19-23, 25, 26 and 33-38 is/are rejected.
- 7) ☒ Claim(s) 8, 11, 13-18, 24, 27 and 28 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The abstract of the disclosure is objected to because of undue length. The abstract may be no more than 150 words. Correction is required. See MPEP § 608.01(b).

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the vacuum aperture equidistance and equiangularly from each other (as claimed in claim 7, 10, 26) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional

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replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 1 – 7, 9, 10, 12, 19 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Der Meulen (US 6,585,470) in view of Kim (KR 2001-017920).

Van Der Meulen has a reticle/wafer manipulator (40) movable in the x,y,z planes comprising a base (72), a first arm (78) having a proximal end coupled to the base and a distal end coupled to the second arm (80). The second arm (80) having a proximal end coupled to the first arm and a distal end coupled to the reticle support member (82) which comprises a U-shaped fork with the distal portion defined by two tines having a vacuum grip. The reticle manipulator (40) services at least two stations (20,22). The reference does not disclose details concerning the vacuum grip. Column 4, lines 31-33 state that the robot may be any suitable transfer device. Kim, the secondary reference, discloses a reticle support member having two tine fork and three vacuum ports, one near the end of each tine and one between the tines. In view of the flexibility suggested by the primary reference in regard to the reticle manipulator one of ordinary skill in the art would have found the arrangement of the Kim reference a suitable vacuum grip arrangement. While the primary reference uses the reticle manipulator in a particular environment or application, one of ordinary skill in the art at the time the invention was made would have recognized that other objects such as substrates, wafer, etc. may be transported and the apparatus or location of the manipulator may be different.

7. Claims 33 – 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Der Meulen (US 6,585,470) in view of Kim (KR 2001-017920).

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The combination has already been discussed above. One of ordinary skill in the art at the invention was made that the reticle manipulator may be used in other environments with different object, and would have moved the object, such as a reticle, to and from different locations in an apparatus in the known manner.

8. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Der Meulen as applied to claims 1 – 7, 9, 10, 12, 19 – 23 above, and further in view of Akimoto et al. (US 5,937,223).

The combination does not disclose a reticle contact pins, however, one of ordinary skill in the art would be motivated to use such a structure in order to accurately and quickly register and align the object/reticle as taught by the Akimoto et al. reference.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bacchi et al. (US 6,126,381) has a reticle/wafer manipulator having a fork with two times having vacuum ports and first and second arms ; Cameron et al. (US 6,632,065) have a reticle/wafer manipulator having oblong vacuum ports; the other references have reticle/wafer manipulators with two times.

Allowable Subject Matter

10. Claims 8, 11, 13 – 18, 24, 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The reference combination do not disclose at least the vacuum shape arrangement and the lip surrounding the vacuum port as claimed.

Response Data

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Rutledge whose telephone number is (571) 272-2127. The examiner can normally be reached on Mon - Thurs, 6:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


D. Rutledge
Primary Examiner
Art Unit 2851

dr
9/30/2004